

SPECIFICATION AMENDMENTS

Page 1, the Title has been rewritten as follows:

PURIFICATION SYSTEM EQUIPMENT FOR WASTEWATER COMING FROM FRUIT AND VEGETABLE PROCESSING PLANTS AND PHYTOSANITARY TREATMENTS IN THE FIELD

The paragraph beginning on page 1, line 5 to line 11 has been rewritten as follows:

This invention, as stated in the heading to this descriptive report, concerns a purification equipment system for wastewater coming from fruit and vegetable processing plants and phytosanitary treatment in the field, with which notable relevant and advantageous characteristics are contributed compared to present conventional purification equipment systems.

The paragraph beginning on page 5, line 25 to page 6, line 11 has been rewritten as follows:

In general terms, the purification equipment system for wastewater coming from fruit and vegetable processing plants and phytosanitary treatment in the field, constituting the object of the invention, basically includes the following elements:

First of all, it has a settling tank, of truncated conical shape and manufactured in polyester reinforced with fiberglass, with an approximate capacity of 500 l. This tank will contain two or more outlets at different heights for the settling, one of which will be arranged so as to start at the conical base and the other at a higher level, more specifically at 50% of the height of the cylindrical part of that tank. It has a flocculent dosing system and a stirrer for producing a good mix. A filtration system for the sludge is provided at the outlet from the tank, and the sludge then passes to a filtering bag of approximately 820 mm in length and 180 mm in diameter, manufactured in single-filament nylon with a mesh-size of 60 to 75 microns. The product filtered in the bag is then passed to a collection tank of approximately 50 l and from here it is pumped to an intermediate tank of dimensions similar to the one for settling.

The paragraph beginning on page 7, line 3 to line 6 has been rewritten as follows:

Figure 1.- This is a diagram of the functioning of the purification ~~equipment system~~ for wastewater coming from fruit and vegetable processing plants and phytosanitary treatment in the field, in accordance with the invention.

The paragraph beginning on page 7, line 17 to line 29 has been rewritten as follows:

Referring to the numbering system adopted in figure 1, we can see how the purification ~~equipment system~~ for wastewater coming from fruit and vegetable processing plants and phytosanitary treatment in the field that the invention proposes includes a settling system for the wastewater coming from the fruit washing drenchers. Its function is to separate the suspended solids that the wastewater contains and is composed of a settling tank 1 where the wastewater arrives and where flocculent can be added by means of the flocculation system 2, with mixing by means of a stirrer 3. Following the decanting, the sludge is extracted via the lower part of the tank and the clarified water is transferred to the intermediate tank 7.

The paragraph beginning on page 8, line 1 to line 14 has been rewritten as follows:

It also includes a sludge treatment system in which the sludge is extracted by gravity from the bottom of the settling tank and arrives at the filtering bag 5, where it is retained and part of the water contained in the sludge is filtered through it. The filtering bag 5 is arranged in a vertical position inside a metal frame 4 which acts as a securing for it and as a collector for the water passing through it on its way to the reception tank 6. This water is pumped from the tank 6 to an intermediate tank 7, where it is combined with the clarified water. The reception tank 6 and the intermediate tank 7 may comprise a stirrer for uniformly mixing the clarified water. The drying of the sludge achieved by means of the filtering bag system is around 50%.

The paragraph beginning on page 8, line 18 to line 26 has been rewritten as follows:

The equipment system also includes the columns of activated carbon, three of them in the examples shown in the diagram. After passing through the safety filter 8, the clarified water arrives at the columns of activated carbon 9, where it is purified by adsorption, with toxic substances being removed down to the threshold values determined by legislation. The warning indicator light 10 indicates when the first column of activated carbon 9 has become exhausted and needs replacing.

The paragraph beginning on page 9, line 23 to line 27 has been rewritten as follows:

The dimensioning of the components of the equipment system has been determined for a volume of trencher liquid to be purified of 460 l/h, since the equipment system has to be dimensioned for different flows and loads of contaminants.

The paragraph beginning on page 11, line 5 to line 30 has been rewritten as follows:

Once the liquids have been filtered in the tank 6, the pump 11b is started up, driving the liquids through three bottles 9 of activated carbon making up the array of columns 9, with each of them having a volume of the order of 316 l. A minimum permanency of two hours for the liquid inside the bottles 9 of activated carbon must be guaranteed. For this, there is a litre counter with an electronic output connected to an electrical automatism that prevents the pump from continuing to drive the liquid until the liquid that is inside the bottles 9 has remained there for at least two hours. These control means provide that mixed clarified water is retained in each carbon column 9 for at least two hours. Moreover, this volumetric counter will also be in charge of warning that the activated carbon in the first bottle 9 is becoming exhausted and needs to be replaced. A telephone warning device can be connected so that the supplier company can proceed to carry out the change. The equipment system has been designed so that a fourth bottle of activated carbon can be incorporated, as shown in figure 4. In this way, the third bottle would easily be able to be replaced by

the spare one, with this third bottle taking over the position of the second one, which would in turn occupy the first position once the clogged up bottle had been removed. These four bottles 9 are located on a rotating plate 17, this entire process of permutation being carried out by means of a simple motorized or manual rotation through 90°, as can be easily deduced from observing the figure.

The paragraph beginning on page 11, line 31 to page 12, line 4 has been rewritten as follows:

Control over the equipment system is done by means of a programmable automaton connected to a touch-sensitive screen enabling the user to programme all the operational parameters of the equipment system, with the records of flows and consumptions, warnings of replacements, etc., and permitting connection to a personal computer for greater versatility in its handling. This computer can in turn be connected to another remote terminal by modem, permitting remote control.